WILDERNESS EVALUATION

Lion Rock - 617040

6,648 acres

OVERVIEW

History

The area was inventoried and evaluated under RARE II as Area No. 6038 and was not recommended for wilderness. The area was not analyzed and considered as part of the Washington State Wilderness Act of 1984 process. The area was identified as an inventoried roadless area in the 1990 Wenatchee Forest Plan.

The 2006 inventory removed approximately 100 acres from previous inventory due to nonconforming uses such as road construction and logging; 2,057 acres were added to the previous inventory as they met the criteria for a potential wilderness area as described in Forest Service Handbook (FSH) 1909.12, Chapter 70. The following chart depicts the 1990 Wenatchee National Forest Land and Resource Management Plan direction for the 2006 potential wilderness area.

Table 1--Management area percentages

Wenatchee National Forest				
GF	RE2A	RE2B	ST1	ST2
18%	43%	24%	5%	10%

Location and Access

The area is located in Kittitas County on the Cle Elum Ranger District and is accessed primarily by Table Mountain and Crystal Roads.

Geography and Topography

This area follows along the western edge of the Table Mountain plateau. The tall basalt cliffs along this edge, representing the western edge of the Columbia River Basalt Plateau physiographic province, along with the massive talus slopes below, are very striking and distinctive. Below the talus zone, the topography is undulating, but with an overall tilt towards the west. There are sag ponds and wet areas scattered throughout the area.

Elevations range from 3,300 to 6,000 feet.

Current Uses

The current use is for dispersed recreation. Dispersed activities in descending order of popularity are as follows: hunting, 4-wheel driving, and motorcycle riding. The area could

be considered moderately popular for all three activities. The area is a scenic attraction as viewed from the road that flanks its eastern boundary.

The area is used regularly for native plant society field trips due to supporting a dry subalpine meadow community. It is also use annually for a "star party" where astronomy enthusiasts come together to study the dark night sky.

Appearance and Surroundings

The area has very high visual variety in landforms and rock forms, moderate to high vegetative variety, and low variety in water forms (lakes and streams). The area is dominated by steep basalt talus and basalt flows bisected with stringers of vegetation. A mixture of conifers and fall colors occur throughout the upper edges of the basalt flow. The area is primarily foreground and middle ground when viewed from the highly visible Table Mountain Road and the dispersed recreation areas along the scarp of the basalt plateau. The Lion Rock area is bounded by Table Mountain to the east and the upper reaches of First Creek, Boulder Creek, Cougar Gulch and ridges to the west, the upper Swauk Creek to the north and Garrison Springs to the south.

Key Attractions

The area is dotted with basalt features with various cliffs, formations, and talus slopes. Lion Rock is a prominent feature that attracts visitation. Several 4x4 trails pass through the area connecting the Liberty area with Table Mountain.

CAPABILITY FOR WILDERNESS

Level of Natural and Undeveloped Environment

This area has been managed under a fire suppression strategy and so the ecosystem is likely altered from pre-European times. The functioning of the natural environment has been compromised because of the surrounding roads and harvesting.

The Lion Rock PWA is impaired by light pollution from the Kittitas Valley area. The southern portion of the PWA (92 percent of the PWA) rates a Class 3 on the Bortle Scale, whereas the northern portion (8 percent of the PWA) rates as a Class 4. A Class 3 Rural Sky has some indication of light pollution on the horizon. Clouds may appear faintly illuminated in the brightest parts of the sky near the horizon, but are dark overhead. The Milky Way still appears complex. Light domes from population centers may appear on the horizon (10-15 degrees above horizon). Visual observing is still relatively unimpaired. Time lapse photography could be impaired by light pollution. A Class 4 Rural/Suburban Transition Sky exhibits fairly obvious light-pollution domes over population centers in several directions. The Milky Way well above the horizon is still impressive but lacks all but the most obvious structure. Clouds in the direction of light pollution sources are illuminated but only slightly so, and are still dark overhead. Modest to serious impact to deep sky observing and imaging occurs.

Water quality data is not available for most of the PWA, however due to the relatively low level of disturbance water quality is assumed to be high.

There are no surveyed noxious weed species within this PWA.

Level of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation

There are many cliffs in the north and east portions of the area, with opportunities existing here for climbers. The remainder of the area does not provide significant opportunity for the visitor to practice self-reliance or develop wilderness skills.

Due to the varied terrain and good trail and road access, this area could provide almost any recreation opportunity except those that involve lakes and above-timberline environments (e.g. high-lakes fishing, mountain climbing, etc.) though solitude might be lacking due to its small size. This area is somewhat noisy and opportunities for solitude and remoteness are slim. A busy forest service road flanks the uphill eastern edge of the PWA, and the distant views in clearcuts and the developed Kittitas Valley.

Special Features

The Table Mountain rim is a series of basalt cliffs and talus slopes that runs along most of the eastern boundary of this PWA that are part of the Columbia Basin basalt flow. It is quite impressive-looking and likely provides habitat for numerous talus-dwellers. This PWA is one of only two in the planning area that features this landform.

All of the potential wilderness area is located in the Swauk Late Successional Reserve, where management emphasis is on the creation and maintenance of late successional forest habitats, particularly dense late successional forest used by spotted owl. About half of the acreage is located in critical habitat for the northern spotted owl (CHU WA-12). It is within the North Cascades Grizzly Bear Recovery Zone (Swauk Bear Management Unit). It also provides source habitat for wolverine. These species have very limited distribution within the region.

The Lion Rock unit is adjacent to and includes the eastern fringes of the former Swauk Mining District, some features of which are eligible for inclusion in the National Register of Historic Places.

One rare plant species, tall agoseris (*Agoseris elata*) is known to occur within this PWA. The plant communities in this area draw interest from native plant enthusiasts.

Although the night sky is not as dark as other PWAs, the relative ease of access to a high elevation open meadow area supports an annual "star party" event.

Manageability of Boundaries

The Lion Rock PWA is bordered on the east by the Table Mountain Road #3500, on the south and west by the Crystal Road, and on the north by the Liberty-Beehive Road #9712. The Table Mountain Road follows prominent geographic features on top and is easy to locate on the ground. Remaining roads bordering the area are used for timber. A small portion of the boundary, the northwest comer between Crystal Road and Road #9712, follows contour lines and the head waters of Williams Creek, this relatively short section of boundary is somewhat difficult to locate on the ground.

The roads bordering this area are a mixture of single lane paved, single lane gravel, and unimproved native material roads. As a result, the types of use and speed of travel vary widely along the area boundary.

It would be difficult to successfully exclude motorized summer and winter use from this area if it becomes designated wilderness.

WILDERNESS AVAILABILITY

Recreation

The area includes two single-track trails and three 4x4 trails. All are open to motorized use and receive moderate to low use. There is relatively little use by hikers, horsemen, or mountain bikers. There are no destinations per se within the area; all trails traverse it on the way to somewhere else. The area has potential value for unroaded types of recreation activities, though it is unlikely to be popular due to its small size, location, and surroundings. There are no groomed winter trails within the area, though it receives a small amount of cross-country snowmobiling. The motorized recreation in this area would be foregone if the area was designated in the wilderness system.

The scenic basalt table land feature that dominates this area is easily view from a system road that flanks its eastern edge. This scenic drive is a favorite with Ellensburg area residents. The Ellensburg Chamber of Commerce website promotes the area for scenic drives, picnics, and hiking. Use of this area is not strongly tied to non-local visitors other than the snowmobile use on groomed system trails adjacent to the area The area could receive some media promotion, and hiking use may increase as a result, but is not likely to attract non-local use due to the lack of water and key destinations.

Table 2--Miles of recreation trails

Motorized Trails	Non-motorized Trails	Snowmobile Trails
9	0	0

Wildlife

The proposed potential wilderness area is a mosaic of mid-to-high elevation dense late successional forest habitat, wet and dry meadows, subalpine parklands, and a small amount of aspen forest. Dense mixed conifer stands are occupied by the northern spotted owl (threatened), American marten, and potentially Pacific fisher (R6 sensitive). The subalpine parklands provide early successional habitats used by Colockum elk, mule deer, black bear, and potentially grizzly bear (threatened). They may also be used by great gray owl (survey and manage), which potentially nest in dense forest and forage in subalpine meadows dominated by mountain sage. There are recent (unconfirmed) reports of gray wolf (endangered) in the area. A broad band of talus below the rim of Table Mountain may be used wolverine—an R6 sensitive species. Larch Mountain salamander and a snail, *Cryptomastix devia* (both survey and manage species) potentially occur in the area.

This potential wilderness area encompasses some security habitat for wildlife (and core area for grizzly bears), mostly below the rim of Table Mountain. Wilderness designation would benefit wildlife by increasing security habitat and improving effectiveness of late

successional forest habitat by reducing motorized road and trail density, confining motorized use to the approved trail system, and preventing disturbance to elk calving areas. There is particular need here to maintain and increase winter security habitat for Canada lynx and other wildlife, due to the unconfined extent and intensity of winter motorized use on Table Mountain.

The PWAs provide varying levels of habitat for focal wildlife species. To help evaluate the habitat that these areas provide, the following information was provided: the focal species emphasized in the area, the amount of habitat for each focal species, the priority ranking for the habitat (based on conservation assessments and recovery plans), and the proportion of the total habitat available on the forest that is within the PWA.

Table 3--Availability of habitat for federally listed Threatened and Endangered wildlife species and R6 Focal Species

Wildlife Species	Acres Habitat	Habitat Priority Ranking (1=high, 2-mod, 3=low)	%Total Forest Habitat In Evaluation Area
Grizzly Bear	3,000 (potential to restore an additional 3,648 ac of core area)	2	<1
Canada Lynx	2,251	3	3
Wolverine	2,736	3	<1
American marten	1,958	3	1

A key issue relative to the sustainability of wildlife habitats is the identification of the amount of dry forest that is in a late-successional habitat area (LSHA). LSHAs that occur in dry forests can be at high risk of high severity wildfire, insects and disease that reduce the sustainability of the late-successional habitats. Active management such as prescribed fire and thinning may be needed to restore these habitats and enhance their sustainability.

Table 4--Acres of dry forest habitats that are present within the evaluation area and also within a Late Successional Habitat Area

Late Successional Habitat Area	Acres of Dry Forest
Swauk	Approx. 1,200

Water/Fish

This PWA is divided between three sub-watersheds, Dry, Swauk and Naneum subwatersheds (6th HUCs). The Dry Creek portion of the PWA has 41 acres in the subwatershed, a fraction of one percent of the total watershed. The U.S. Forest Service manages three percent of the entire subwatershed. Based on the low number of acres and minor amount of land managed by the U.S. Forest Service, the Dry Creek subwatershed is not discussed in further detail.

The Swauk sub-watershed covers 63,911 acres, with 75 percent of that acreage managed by the U.S. Forest Service. The 6,415 acres of PWA in the Swauk equals 10 percent of that subwatershed. The other 192 acres in this PWA cover less than 1 percent of the 54,153

acre Naneum subwatershed. About 36 percent of the Naneum is managed by the U.S. Forest Service.

Swauk subwatershed received the lowest rating of all Okanogan-Wenatchee National Forests subwatersheds. Stream reach conditions in Swauk subwatershed that respond to natural and human caused disturbances were evaluated as *poor* because collected stream data values were lower than expected values measured in high functioning stream habitat elsewhere on the Okanogan-Wenatchee National Forest. Subwatershed vegetation conditions were altered from expected natural forest conditions; analyzed road effects were extensive. Vegetation condition and road effects considered cumulatively were rated poor. When vegetation condition and road effects were combined with measured stream responses to summarize overall subwatershed condition, this subwatershed was rated poor.

Stream reach conditions in the Naneum Creek subwatershed that respond to natural and human caused disturbances were evaluated as good because collected stream data values were similar to expected values measured in high functioning stream habitat elsewhere on the Okanogan-Wenatchee National Forest. Subwatershed vegetation conditions were somewhat altered from expected natural forest conditions; analyzed road effects were moderate. Vegetation condition and road effects considered cumulatively were rated fair. When vegetation condition and road effects were combined with measured stream responses to summarize overall subwatershed condition, this subwatershed was rated fair.

Swauk Creek, First Creek and Cougar Gulch Creek in the Swauk Watershed were designated as critical habitat for steelhead by the National Marine Fisheries Service in January 2006. The potential wilderness area encompasses the headwaters for First Creek, a tributary to Swauk Creek. First Creek provides habitat for steelhead, resident rainbow and westslope cutthroat trout, and introduced brook trout.

There are no water related encumbrances or planned projects within the area.

Range

This small potential wilderness area lies entirely within two domestic stock allotments. The south half is in the Table Mountain Sheep Allotment, while the north half is part of the Swauk Cattle Allotment. All grazing resource potential for this potential wilderness area is currently being managed through existing allotment plans.

Figure 5--Grazing suitability and current allotments

Percent area suitable for cattle grazing	Percent area currently in cattle allotments	Percent area suitable for sheep grazing	Percent area currently in sheep allotments
6	47	8	53

Vegetation and Ecology

Most of the area is classified as wet ecotype with Douglas-fir, grand fir, western larch, and ponderosa pine at lower elevations. At higher elevations, especially on flat benches, lodgepole pine is the predominate species. Numerous wet areas and dry rocky areas support willow, ocean spray, serviceberry, and false hellebore.

Large basalt rock flows are interspersed with alpine fir, western larch, and Douglas-fir timber stringers and pockets.

Generally, the priority for restoration treatments occurs within the wildand urban interface (WUI) or within the dry, mesic forest groups. Because WUI represents over three quarters of the potential wilderness area, the prohibition on restorative treatments is a concern. The concern is decreased, however, by recognizing that dry, mesic forest occupies on less than one fifth of the area. However, there may be a need to respond to needs in small portions of the WUI.

The Healthy Forest Restoration Act (HFRA) authorizes direction to implement fuel reduction projects in the WUI. The HFRA prohibits authorized projects in wilderness areas.

Timber Harvest Suitability

The underlying criteria for determining timber harvest suitability are found in the Forest and Rangeland Renewable Resources Planning Act of 1974, 36CFR219.12, and Forest Service Handbook 1909.12, Chapter 60.

For the Colville and Okanogan-Wenatchee National Forests, the general criteria for timber suitability that will be used for timber harvest suitability are:

- Is it forest land (10 percent crown cover minimum, productivity >20 ft^3/ac/yr).
- The area has not been withdrawn from timber harvest or production.
- Soil, slope, or other watershed conditions will not be irreversibly damaged (based on soil attributes for erosion, instability, or compaction potential, slopes >65 percent, and certain land types)
- Reforestation can be assured within five years (lack of shallow soils, low frost heave potential, low surface rock, plant community type, certain land types, and elevation <5,500 feet)
- Economic and technologic viability (<0.5 miles from existing transportation system, species value or condition, volume availability, logging systems)

In consideration of all the criteria for determining timber harvest or timber production suitability and not just the fact that harvestable species can grow at a specific location, it appears this PWA does not have conditions that pass all the criteria. The main criterion for failure is that unacceptable resource impacts would likely occur due to road construction activities. This does not preclude helicopter operations that could fly material over sensitive areas to adjacent road systems. However, in most if not all cases helicopter logging and the associated expenses (such as manual slash treatments) would not be an economically viable option.

Table 6--Stand data percentages

Suitable for Timber Harvest	Forest Groups		WUI	
0%	Parkland	0%	Total WUI	78%
	Cold Dry	53%	WUI in Dry and Mesic Forest	20%
	Cold Moist	27%		

	Mesic	2%	
	Dry	17%	
	Non-forest	1%	

Fire

Annual fire occurrence is low with fuel loadings ranging from areas of heavy accumulations of ground fuels to clean stands of lodgepole pine and scattered alpine and sage meadow. Fire history consists of periodic fires of from one to 20 acres in size.

Insects and Disease

The Wilderness Act of 1964 allows for the control of insects and disease, but taking such actions in wilderness is rare. Forest Service wilderness policy (Forest Service Manual 2324.11) directs the agency "to allow indigenous insect and plant diseases to play, as nearly as possible their natural ecological role". Policy also directs the agency to "protect the scientific value of observing the effect of insects and disease on ecosystems and identifying genetically resistant plant species", and finally, "to control insect and plant disease epidemics that threaten adjacent lands or resources."

A portion of this PWA is comprised of a parkland forest group and may support stands of whitebark pine. Due to a combination of anthropogenic causes (introduced white pine blister rust, global warming, and fire suppression leading to high severity wildfires) coupled with predation from native mountain pine beetles, whitebark pine stands are at risk across their range. These whitebark pine stands are of inherent value as a plant community, for providing important habitat for wildlife including the federally listed grizzly bear, and for their aesthetics in contributing to the social setting. Wilderness designation would limit restoration options for these stands. Manipulations would only be considered in order to protect the composite wilderness resource, and only as a last resort to preserve naturalness at the expense of trammeling.

An aerial survey of this PWA was completed in the vicinity of this PWA in 2007. This area experienced heavy budworm defoliation in the grand fir and Douglas-fir stands in the 1970s. Mistletoe and *phellinus* root rot are also severe in these species. Up to 30 percent of the trees are dead as the result of these three damaging agents in the old growth grand fir, Douglas-fir stands.

The Wenatchee Service Center has analyzed data produced by the 2007 aerial survey in order to provide land managers with a summary of forest insect activity in particular areas. Aerial survey information can give a valuable overview of recent tree damage and damaging agents at the time of the flight. Note that trees identified as killed by bark beetles generally were attacked in the summer of 2006 or possibly spring of 2007. It takes several months for the crown of a beetle-killed tree to lose its green color. The speed of the color change depends on the condition of the tree at the time of attack. The Table Mountain analysis area includes Lion Rock, which is a 2001 Inventoried Roadless Area (Forest Plan Appendix C), and 2007 Potential Wilderness Area for forest plan revision.

The primary damaging agent reported in this area was western spruce budworm. About 9,700 acres were mapped, mainly south and west of Table Mountain. This is the second year that extensive defoliation has been reported.

About 2,600 acres of subalpine firs killed by western balsam bark beetles were mapped, mainly north of Table Mountain. The largest pocket, about 1,200 acres, was mapped on the

east side of Table Mountain Ridge. It includes the area around the A-frame at the head of Owl Creek.

Two pockets of balsam woolly adelgid were mapped on Table Mountain Ridge near trail 1387. Balsam woolly adelgid is a European insect that was introduced to North America in the early 1900s. Any true fir can be a host, but subalpine fir is the most susceptible species on the District. Feeding by this sucking insect causes branch gouting and flagging, growth loss, wood degradation, and eventual tree death. Twenty-three species of predators were introduced between 1957 and 1964 in order to control this insect. Five of these species are established but do not appear to be reducing the balsam woolly adelgid population in any significant way. There is considerable difference in both individual tree and site susceptibility.

Decline of subalpine fir has been noted in many places in eastern Washington. Some of the damage attributed to western balsam bark beetles or balsam woolly adelgids has been caused by other agents, including *Pityoktines minutus* beetles and *cytospora* canker. Firs that have been stressed by factors such as drought or root disease become susceptible to secondary bark beetles and weak pathogens. Field verification may be necessary to determine the causes of subalpine fir decline and mortality.

Numerous pockets of grand firs killed by fir engravers were mapped, totaling about 1,700 acres. The largest, about 790 acres, was mapped on the west side of Table Mountain Ridge north of Lion Rock, along trail 1368. Fir engravers are bark beetles that attack grand firs. Fir engraver activity is often associated with root disease. They are also attracted to trees under stress from drought, defoliation, or other damage. In this case, the combined effects of defoliation and root disease have made grand firs susceptible. Trees that are attacked may be killed outright, or they may survive with top-kill. The amount of damage reported probably underestimates the true extent of bark beetle activity since it is impossible to detect tree killing by bark beetles when the host has been defoliated.

Douglas-fir beetles were reported to have killed about 800 Douglas-firs on the west side of Table Mountain Ridge north of Lion Rock, along trail 1368. Douglas-fir beetles often build up populations in blowdown or severely stressed Douglas-firs. If substantial quantities of this breeding material are available the beetle population may increase to damaging levels, attacking and killing large, healthy Douglas-firs. Damage from this insect can be reduced by removing blowdown or storm-damaged Douglas-fir before the developing larvae mature and disperse. Douglas-fir beetle activity in Table Mountain may be the result of defoliation. In this area I have recently observed attacks on large Douglas-firs that were already partially killed by dwarf mistletoe infection.

Threatened, Endangered, and Sensitive Plant Species

There is one surveyed rare plant population within this PWA; *Agoseris elata* (tall agoseris).

Noxious Weeds

There are no surveyed noxious weed species within this PWA.

Minerals and Soils

This area lies adjacent to the west edge of Columbia River Basalt Plateau, and is underlain by both Miocene volcanic rocks and by Tertiary and Cretaceous non-marine sedimentary and volcanic rocks. The area has not been investigated in detail by either the U.S.G.S. or U.S. Bureau of Mines, but available references indicate there are no known mineral resource occurrences of interest in the immediate area. The entire area is classified prospectively valuable for oil and gas, and the Bureau of Land Management (BLM) classifies the area as having a high potential for oil and gas; most of the area is classified prospectively valuable for coal resources; and the entire area was identified as an "area of critical mineral potential" in a BLM nomination process (Bee, 1983). Based upon geology and proximity to the Liberty Mining District to the west and Wenatchee Gold Belt to the east, the area does have a moderate potential for the occurrence of gold deposits.

Even though the area has no known mineral resources of a significant nature, there has been interest in exploration for such resources. According to BLM mining claim recordation data (October 8, 2004) there have been approximately 618 lode mining claims and three placer mining claims located within or adjacent to the area (within up to three quarters of a mile of the potential wilderness area). Eighteen lode claims remain listed as active in BLM data, probably all of which are outside the potential wilderness area.

Three oil and gas leases that had covered the general area were terminated by 1990. No significant exploration took place. There appears to be no interest in the potential coal resources of the area. Since the area has not been explored thoroughly, it is not known if the claim-staking and leasing has been done in speculative response to mining and exploration conducted elsewhere or done in response to specific industry knowledge of the area.

More than 90 percent of the soils have formed in basaltic material, and the remainder have formed in alluvium or else either pyroclastic or sandstone materials. Most of the area lies above 5,000 feet in elevation on a high plateau. The basaltic soils are mostly medium textured, and they often become slippery and sticky when wet. Soil depths for these soils range from about 20 inches to about 40 inches. Slopes on the top of the plateau vary from about three to fifteen percent.

Cultural Resources

This unit encompasses an area of reported prehistoric use (travel ways and food gathering) as well as recorded archaeological occurrences. The Lion Rock unit is also adjacent to and includes the eastern fringes of the former Swauk Mining District, some features of which are eligible for inclusion in the National Register of Historic Places. Unless a site has been determined to be ineligible for the National Register, it is managed as a significant site until such a determination is made. Cultural sites are protected by law; however, a wilderness designation or a roadless designation would afford additional protection to cultural sites from ground disturbing activities.

Land Uses and Special Uses

There are no land uses under special use permit within the area. Mining claims exist throughout the area.

The Lion Rock Potential Wilderness Area falls entirely within lands ceded to the U.S. Government under the Yakama Treaty. Indian tribes hold rights reserved under treaty and recognized in statutes, executive orders, and policies. Generally, these included rights to fish at usual and accustomed grounds and stations, the right to hunt and gather on open and unclaimed lands, the right to erect temporary houses to cure fish, and the right to pasture horses and cattle on open and unclaimed lands.

Private Lands

There are no private inholdings. Two small parcels of private land adjoin this PWA.

NEED FOR WILDERNESS

Location and size of other wildernesses in the general vicinity and distance from area and population centers:

This area is located within a few miles of the Alpine Lakes (362,789 acres), Norse Peak (52,180 acres), William O. Douglas (168,232 acres), and Goat Rocks (107,018 acres) Wildernesses. These wildernesses are within a one to four hour drive of the urban populations of Seattle, Puget Sound, Yakima, Tri-Cities, and Wenatchee.

In ranking this PWA for its potential to provide a high quality wilderness recreation setting it ranked as high due to providing an altogether new setting to the National Wilderness Preservation System (the basalt flows of the Columbian Basin Ecoregion). Views include the columnar basalt cliffs, dry alpine meadows, and forested and rural portions of the Kittitas Valley. The area supports natural history field trips. The area is readily accessible on a paved road from Ellensburg. Due to a lack of available water, the area would not lend itself to overnight use. In addition, much of the trail system is in heavy forest and lacks views, so in some ways this area would be less attractive to primitive recreation users.

Present visitor pressure on other wildernesses, trends, and changing patterns of use:

Use patterns remain flat overall in nearby wildernesses. Day hiking is up slightly in the past few years, while overnight use, both backpacking and horse packing are down slightly. Hunting has declined substantially in the past decade.

Extent to which non-wilderness lands provide opportunities for unconfined outdoor recreation experiences:

This area, as with many non-wilderness areas in this vicinity, provides high opportunities for unconfined recreation, especially ORV-related activities. Although opportunities abound for other forms of unconfined recreation, such as hiking and horseback riding, relatively little takes place because of the area's small size and moderate levels of motorized use on the existing trails.

The Okanogan-Wenatchee National Forest provides varied potential wilderness areas that are not designated wilderness. Some portions of these areas allow motorized use, whereas other areas are non-motorized. Other inventoried potential wilderness areas in the vicinity that provide good opportunities for unconfined recreation include Teanaway, Devils Gulch, Alpine Lakes Adjacent and Thorp Mountain.

The need to provide a sanctuary for those biotic species that have demonstrated an inability to survive in less than primitive surroundings or the need for a protected area for other unique scientific value or phenomena:

Wildlife

This PWA provides habitat for the northern spotted owl, American marten, fischer, grizzly bear, gray wolf, wolverine, and great gray owl--all species that require relatively large pristine areas.

Fish

Several native species in the interior Columbia River Basin have demonstrated an inability to survive in less than primitive surroundings, especially the bull trout. In addition to habitat changes on National Forest System lands, other factors off forest such as hydropower generation, hatchery programs, harvest, and changing ocean conditions further challenge the persistence of some far-ranging native species. Broad-scale assessments have demonstrated a positive correlation between unroaded areas and persisting native fish stocks. Often, assessments like these don't differentiate between wilderness and roadless areas; rather they combine the two into an "unroaded" category. These assessments show current strongholds (most secure and robust populations) are dependant on wilderness and roadless areas. Some of the more resilient native fish populations in the Interior Columbia Basin are located in unroaded areas on National Forest System lands.

For the Okanogan-Wenatchee National Forest PWAs were assigned an aquatic ranking based on federally listed and sensitive fish species that are sensitive to human disturbances. A high ranking was assigned when listed fish species occur in the PWA or when ecological process including high quality water help sustain listed fish species downstream of the PWA. All other PWAs are ranked low. This PWA is assigned a high ranking based on these factors.

Rare Plant Species

An analysis was completed to prioritize which PWAs would contribute the most to providing refugia for those plant species on the species of interest/species of concern (SOI/SOC) list. The analysis ranked three factors. The first factor, the total number of sites occurring within the PWA, ranked as low for this PWA. The second factor, which also ranked as low for this PWA, examined the degree of rarity of any SOI/SOC species present, and also recognized the importance of individual PWAs in supporting a high incidence of populations relative to Washington State as a whole.

PWAs are generally unsurveyed for rare plants due to a relative lack of projects occurring in these areas. Thus an additional factor examined the potential for the PWA to support SOI/SOC species. Based on databases, first the SOI/SOC plant species were identified that are present within a five-mile radius of the PWA, but are not known to occur within the PWA. Then the PWA was analyzed to see if the potential habitat for these species occurs within the PWA. Based on this analysis, this PWA ranks as high.

Finally, a composite score was assigned to each PWA based on combining each of the rankings described above. This PWA ranks overall as moderate priority for preserving rare plant refugia with a wilderness designation.

Ability to provide for preservation of identifiable landform types and ecosystems:

The Columbia basalt tableland is the dominate feature of this area. This ecoregion type is not currently represented in the wilderness system. This PWA represents one of only two in the planning area exhibiting this landform. The remainder of the area represents the East Cascades Ecoregion using Bailey's Ecoregional Classification System. This ecoregion type is well represented in existing wilderness lands in the Cascade Range.

An analysis compared vegetative cover types that are under-represented in wilderness on the National Forest System in Region 6 with those same cover types present in the PWA. Large-scale cover types were available through existing data layers and represent approximately 14 percent of the vegetative cover of this PWA (approximately 770 acres). These types include forb lands, non-alpine meadows, and alpine meadows. Taken as a whole, the contribution of underrepresented vegetation types ranks as moderate for the portion of this area with underrepresented cover types, but as low for the number of acres that are represented within this PWA relative to the other PWAs in the planning area.

Some under-represented cover types fill microhabitats such as riparian areas or perched water tables. Such finer scale cover types represented in this PWA include quaking aspen.

None of these cover types would make a significant contribution within the eastern Washington planning area.